

**IN THE CLAIMS:**

Please amend claims 88-91, 94, 98, 99, 120 and 121 and add claim 128 as indicated below. This listing of claims replaces all prior such listings of claims.

**LISTING OF CLAIMS:**

- 1-49. (Cancelled)
- 50. (Previously Presented) The method of claim 92, wherein the cell is a plant protoplast.
- 51. (Previously Presented) The method of claim 50, wherein the SATAC encodes a gene product.
- 52. (Previously Presented) The method of claim 51, wherein the SATAC is introduced by cell fusion, lipid-mediated transfection by a carrier system, microinjection, microcell fusion, electroporation, microprojectile bombardment, or direct DNA transfer.
- 53-72. (Cancelled)
- 73. (Previously Presented) The method of claim 50, wherein the SATAC is introduced by direct DNA transfer.
- 74. (Previously Presented) The method of claim 50, wherein the SATAC is introduced by cell fusion.
- 75. (Previously Presented) The method of claim 50, wherein the SATAC is introduced by lipid-mediated transfection by a carrier system.
- 76. (Previously Presented) The method of claim 50, wherein the SATAC is introduced by microinjection.
- 77. (Previously Presented) The method of claim 50, wherein the SATAC is introduced by microcell fusion.
- 78. (Previously Presented) The method of claim 50, wherein the SATAC is introduced by electroporation.
- 79. (Previously Presented) The method of claim 50, wherein the SATAC is introduced by microprojectile bombardment.
- 80. Cancelled
- 81. (Previously Presented) The method of claim 51, wherein the SATAC is introduced by cell fusion.
- 82. Cancelled
- 83. Cancelled

84. (Previously Presented) The method of claim 51, wherein the SATAC is introduced by microcell fusion.

85. Cancelled

86. Cancelled

87. (Previously Presented) The method of claim 51, wherein the gene product confers disease resistance to the transgenic plant.

88. (Currently Amended) The method of claim 50, wherein the plant protoplast is selected from among a monocot, a dicot and an algae.

89. (Currently Amended) The method of claim 88, wherein the plant protoplast is selected from among tobacco, tomato, potato, petunia, wheat, rice, maize, rye, cotton, soybean, *Brassica napus* and lettuce.

90. (Currently Amended) The method of claim 51, wherein the plant protoplast is selected from among a monocot, a dicot and an algae.

91. (Currently Amended) The method of claim 90, wherein the plant protoplast is selected from among tobacco, tomato, potato, petunia, wheat, rice, maize, rye, cotton, soybean, *Brassica napus* and lettuce.

92. (Previously Presented) A method for producing a transgenic plant, comprising introducing a satellite artificial chromosome (SATAC) into a plant cell, wherein a SATAC has more heterochromatin than euchromatin; and

growing the plant cell under conditions to produce a transgenic plant.

93. (Previously Presented) The method of claim 92, wherein the plant cell is contained in a plant organ or embryoid.

94. (Currently Amended) The method of claim 92, wherein the plant is selected from among tobacco, tomato, potato, petunia, wheat, rice, maize, rye, cotton, soybean, *Brassica napus* and lettuce.

95. (Previously Presented) The method of claim 92, wherein the SATAC encodes a gene product.

96. Cancelled

97. (Previously Presented) The method of claim 95, wherein the gene product confers disease resistance to the transgenic plant.

98. (Currently Amended) The method of claim 95, wherein the plant cell is selected from among a monocot, a dicot and an algae.

99. (Currently Amended) The method of claim 95, wherein the plant cell is selected from among tobacco, tomato, potato, petunia, wheat, rice, maize, rye, cotton, soybean, *Brassica napus* and lettuce.

100. Cancelled

101. (Previously Presented) The method of claim 92, wherein the SATAC is introduced by cell fusion.

102. Cancelled

103. Cancelled

104. (Previously Presented) The method of claim 92, wherein the SATAC is introduced by microcell fusion.

105 – 107. Cancelled

108. (Previously Presented) The method of claim 95, wherein the SATAC is introduced by cell fusion.

109. Cancelled

110. Cancelled

111. (Previously Presented) The method of claim 95, wherein the SATAC is introduced by microcell fusion.

112. Cancelled

113. Cancelled

114. (Previously Presented) The method of claim 92, wherein the satellite artificial chromosome is a satellite artificial chromosome that includes a plant centromere.

115. (Previously Presented) The method of claim 92, wherein the satellite artificial chromosome is introduced into the cell by a method comprising:

introducing one or more DNA fragments into a plant cell, wherein the DNA fragment or fragments comprise a selectable marker,

growing the cell under selective conditions to produce cells that have incorporated the DNA fragment into their genomic DNA,

selecting a cell that comprises a satellite artificial chromosome, thereby introducing a satellite artificial chromosome into the cell.

116. (Cancelled)

117. (Previously Presented) The method of claim 114, wherein the satellite artificial chromosome encodes a gene product.

118. (Cancelled)

119. (Previously Presented) The method of claim 117, wherein the gene product confers disease resistance to the transgenic plant.

120. (Currently Amended) The method of claim 114, wherein the plant cell is selected from among a monocot, a dicot and an algae.

121. (Currently Amended) The method of claim 114, wherein the plant cell is selected from among tobacco, tomato, potato, petunia, wheat, rice, maize, rye, cotton, soybean, *Brassica napus* and lettuce.

122-127. Cancelled

128. (New) A method for producing a transgenic plant, comprising:  
introducing one or more DNA fragments into a plant cell, wherein the DNA fragment or fragments comprise a selectable marker;  
growing the cell under selective conditions to produce cells that have incorporated the DNA fragment into their genomic DNA;  
selecting a cell that comprises a sausage chromosome; and  
growing the plant cell under conditions to produce a transgenic plant.